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(21) International Application Number: PCT/JP00/03022 (22) International Filing Date: 11 May 2000 (11.05.00) (30) Priority Data: 11/130267 11 May 1999 (11.05.99) JP (71) Applicants (for all designated States except US): JAPAN CHEMICAL INNOVATION INSTITUTE [JP/JP]; 22-13, Yanagibashi 2-chome, Taito-ku, Tokyo 111-0052 (JP). JAPAN as represented by DIRECTOR GENERAL OF AGENCY OF INDUSTRIAL SCIENCE AND TECHNOL- OGY [JP/JP]; 3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100-0013 (JP). (72) Inventors; and (75) Inventors/Applicants (for US only): YOSHIZAKO, Kimi- hiro [JP/JP]; 4-24-202, Higashi 2-chome, Tsukuba-shi, Ibaraki 305-0046 (JP). AKIYAMA, Yoshikatsu [JP/JP]; 15-18, Togoshi 1-chome, Shinagawa-ku, Tokyo 142-0041 (JP). OKANO, Teruo [JP/JP]; 12-12, Kounodai 6-chome, Ichikawa-shi, Chiba 272-0827 (JP). UENO, Katsuhiko [JP/JP]; 670-50, Hirooka, Tsukuba-shi, Ibaraki 305-0042 (JP).		(74) Agent: TOMITA, Hiroyuki; Yuasa And Hara, Section 206, New Ohtemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyo- oda-ku, Tokyo 100-0004 (JP). (81) Designated States: AU, CA, JP, US, European patent (DE, FR, GB, IT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>
(54) Title: AFFINITY-CONTROLLING MATERIAL WITH THE USE OF STIMULUS-RESPONSIVE POLYMER AND SEPARATION/PURIFICATION METHOD WITH THE USE OF THE MATERIAL		
(57) Abstract An affinity-controlling material, wherein a stimulus-responsive polymer and an affinitive substance (ligand) having affinity for a target substance are independently attached, preferably covalently, to a support matrix is provided. The material is capable of separating and purifying a target substance such as a physiologically active substance under a physical stimulus while keeping at least one condition other than temperature (for example, pH value of solution, organic solvent concentration or salt concentration) constant by using a support matrix capable of preventing nonspecific adsorption of proteins and achieving an excellent separation performance.		

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